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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,737	03/23/2004	Vasanth R. Gaddam	US000214A	2557
24737 7590 12/19/2007 PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510			EXAMINER KIM, KEVIN	
			ART UNIT 2611	PAPER NUMBER
			MAIL DATE 12/19/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/806,737	<b>Applicant(s)</b> GADDAM ET AL.	
	<b>Examiner</b> Kevin Y. Kim	<b>Art Unit</b> 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 October 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 15-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-21, 23-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed October 12, 2007 have been fully considered but they are not persuasive.

Applicant argues that the examiner failed to show a symbol map and metric table is required for each encoding rate. Trellis encoding generates a number of bits corresponding to an input put. For each encoding rate, an input bit is represented by multiple bits or a symbol. This is illustrated in the table/ "symbol map" at col.4 of the Jafarkhani et al patent. When the encoding rate is higher it generates more bits, using a different symbol map. Since the patent teaches that the receiver may be adapted to accept any of three rates (col.5:34-36), symbol maps and metric table for all three different rates must be provided.

In light of the amendment and argument, the rejections under 35 USC 112 are withdrawn.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 102***

3. Claims 15,21,23 and 24 rejected under 35 U.S.C. 102(e) as being anticipated by Jafarkhani et al (US 6,542,554).

Claims 13 and 23.

Referring to Fig. 4, Jafarkhani et al teach a receiver (150) that is adapted to decode trellis encoded signals of different encoding rates, i.e., a first data stream with an encoding rate R1 (by Encoder 110) and a second data stream with a different encoding rate R2 (by Encoder 120). See

col.5, lines 34-45. For different encoding rates, different symbol maps are required. Since one of the rates, R1 and R2, is greater than the other, the symbol maps uses different number of symbols to decode the decoded signals, thus one having a higher gain than the other. At the receiver side, a metric table which is the inverse of an encoding symbol map is used to decode the received bits.

Claims 21 and 24.

All treillis encoding is designed to minimize the effects of a symbol error as it is essentially a forward error correction encoding.

#### ***Claim Rejections - 35 USC § 103***

4. Claim 16,18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jafarkhani et al as applied to claim 15 above and further in view of Limberg (US 5,805,241).

Consider claims 16 and 19. Jafarkhani et al discloses all the subject matter claimed as explained above except for a de-interleaver, a Reed-Solomon decoder, a de-Randomizer coupled to the trellis decoder in Claim 16 and “a subsequent error correction process” in claim 19. Limberg teach receivers that provides a decoded data to de-interleaver, a Reed-Solomon decoder and a de-Randomizer for error correction purposes. See col. 1, lines 32-36. Thus, it would have been obvious to one skill in the art at the time the invention was made to couple a de-interleaver, a Reed-Solomon decoder, a de-Randomizer to the trellis decoder of Jafarkhani et al, i.e., to provide a post-decode error correction process, as taught by Limberg, for the purpose of reducing transmission error when the transmitted signal was randomized, Reed-Solomon coded and interleaved for forward error correction.

Regarding claim 18, Limberg teaches that the transmitted signal is high-definition television signals, which must be “in substantial conformance with ATSC standards.”

5. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jafarkhani et al and Limberg as applied to claim 19 above, and further in view of Klayman et al (US 5,699,365).

Jafarkhani et al and Limberg disclose all the subject matter claimed as explained above except for the error-correcting post processor being “enabled in dependence upon a control parameter in an MPEG header.” First, high-definition television signals are compressed ones in accordance with MPEG. Klayman et al teaches selectively enabling error correction using a set of operation parameters depending on the channel condition. See col. 12, lines 16-23. Thus, it would have been obvious to one skilled in the art at the time the invention was made to use a control parameter in an MPEG header in the data stream of Jafarkhani et al as modified by Limberg to selectively enable error correction to reduce overhead as taught by Klayman et al.

#### ***Information Disclosure Statement***

The information disclosure statement filed March 23, 2004 fails to comply with 37 CFR 1.98(a)(1), which requires the following: (1) a list of all patents, publications, applications, or other information submitted for consideration by the Office; (2) U.S. patents and U.S. patent application publications listed in a section separately from citations of other documents; (3) the application number of the application in which the information disclosure statement is being submitted on each page of the list; (4) a column that provides a blank space next to each document to be considered, for the examiner’s initials; and (5) a heading that clearly indicates that the list is an information disclosure statement. The information disclosure statement has

been placed in the application file, but the information referred to therein has not been considered.

The second page of the IDS is the PTO-892 provided to the applicant during the prosecution of the parent application. A PTO-1449 should be used to list the prior art references for proper recordation of consideration.

*Allowable Subject Matter*

6. Claim 22 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

*Conclusion*

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Y. Kim whose telephone number is 571-272-3039. The examiner can normally be reached on 8AM --5PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu can be reached on 571-272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

December 18, 2007

AU 2611

KEVIN KIM  
PRIMARY PATENT EXAMINER

